# EDVOTEK® 12.0 L Digital Water Bath

This classic Edvotek® water bath has been updated & improved yet again - and now has a built-in timer! Still includes digital temperature control and low-water sensor to prevent burn-outs. The stainless steel chamber is corrosion resistant and temperature controlled from ambient to 99°C while using the included covers. The unit also includes a convenient drain hose that makes it easy to drain and clean.

## FEATURES:

- 12.0 L seamless stainless-steel chamber
- Digital display
- Chamber dimensions: 35 x 35 x 20 cm
- Temperature range: Ambient to 99.9°C with cover
- Power: 300 W, 110 V, 50 Hz

## CONTACT INFORMATION:

For technical, sales or servicing information, contact:

EDVOTEK, Inc.,
1121 5th Street NW
Washington, DC 20001

1.800.EDVOTEK
Fax: 202.370.1501
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www.edvotek.com

Please keep this user manual for future reference.

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## SAFETY GUIDE:

⚡  **CAUTION - dangerous or harmful.**
❗ **NOTE - important operation or maintenance instruction.**

⚡  Do not attempt to disassemble the product without authorization.
⚡  Do not attempt to replace the power cord without authorization.
⚡  Any changes or modifications to the product could cause potential harm to the user.
⚡  If any unusual circumstance occurs, immediately turn off the water bath and disconnect power.
⚡  Contact EDVOTEK® for maintenance or warranty information.

❗ Before cleaning or moving the water bath, turn off the power and disconnect the plug.
❗ Do not expose water bath to toxic substances, volatile chemical solvents, low-concentration explosive gases, or low-ignition-point gases.
❗ In ensure normal operation and avoid accidents, store and operate water bath on a level surface. Avoid tilting and maintain balance. Avoid using the water bath in a cold environment.

## WATER BATH PROGRAMS:

*The general user should only need to access the Temperature, TIMER (TI) or the (SC) Correcting Sensor Error programs. General users should not need to access the additional programs for simple water bath use.*

(Temperature): To set the temperature, press the **SET** button and numbers will flash. Press the (▲) button to increase temperature or the (▼) button to reduce the temperature. Press the **SET** button again to exit and return to normal operation.

(TI): Timer. Press the (▲) or (▼) button to adust the timer. Press the **SET** button again to exit and return to normal operation. When unit displays "0", the timer is off.
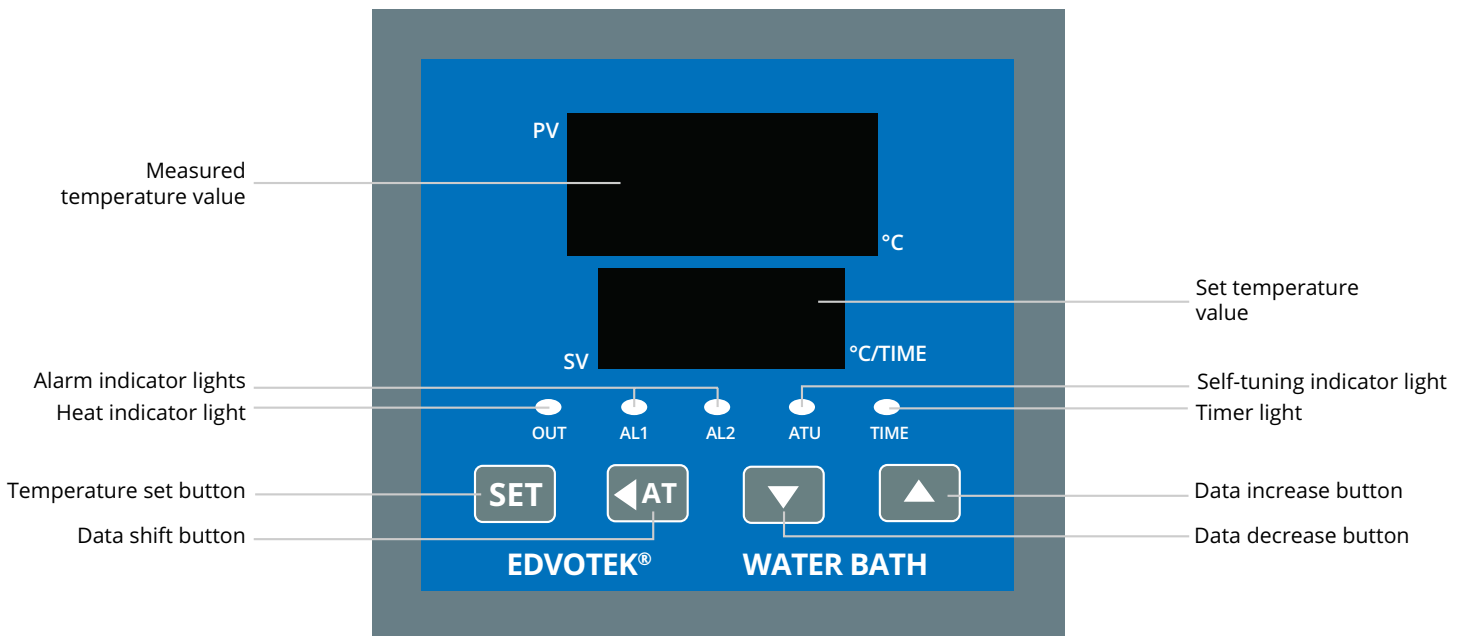
(SC): Correcting Sensor Errors. To correct sensor errors, press the **SET** button for 3 seconds to enter the water bath **MENU**. Select "SC". Press the (▲) or (▼) button to correct the error. (NOTE: The factory default correction value is 0.) Press the **SET** button again to exit and return to normal operation.

(E): Controls the temperature value before the heating stops. E only works when P value is 0, and default is 0.5. For example, if you set temperature to 50°C and (E) is 0.5, the heating will be controlled at 49.5°C.

(P): Controls the temperature overshoot. Heating stop temperature=setting temperature-(10/P), the larger the P value, the easier it is to overshoot. For example, if you set temperature to 50°C and P is set to10, then it will control the heating at 49°C.  If P is set to 4, then it will control the heating at 47.5°C.

(C): System reserved data. Please do not adjust. The default value is 10.0.

(AL): High temperature alarm value. When temperature over the set temperature (+ AL), the instrument will alarm for high temperature.

## HOME SCREEN OVERVIEW:



PV — Measured temperature value

°C

SV — Set temperature value

°C/TIME

Alarm indicator lights — OUT  AL1  AL2  ATU  TIME — Self-tuning indicator light

Heat indicator light — Timer light

Temperature set button — SET  ◄AT  ▼  ▲ — Data increase button

Data shift button — Data decrease button

EDVOTEK®          WATER BATH

### (OUT) HEAT INDICATOR LIGHT
ON - Unit is heating up.
OFF - Heating has stopped.

### (AL1) HIGH TEMP ALARM light
ON - Temperature is high/over limit.
OFF - Temperature is not over limit.

### (AL2) Backup ALARM light
Spare light.

### (ATU) SELF-TUNING INDICATOR LIGHT
FLASHING - Self-tuning is activated and in progress.
OFF - Self-tuning is turned off.

### (TIME) TIMER LIGHT
OFF - Timer is switched off.
FLASHING - Timer is turned ON and running.
ALWAYS ON - Timer is ON but the time is up. Water bath is in the stop output state.

## COMMON FAULTS AND SOLUTIONS:

| PROBLEM | SOLUTION |
|---|---|
| The unit shows it is normal but not heating up | Setting temperature is lower than testing temperature. |
| Heating light Is on,but temperature doesn't go up. | • Output connection is faulty.<br>• The connection between the control board and the power supply board is faulty. |
| The unit always shows 0.0 | Thermistor has short circuited or temperature is over limit. |
| The unit always shows 99.9 | Thermistor has short circuited, become disconnected, or the temperature is over limit. |
| The temperature overshoot is large? | • P value is too large, need to set down.<br>• The temperature probe is near close to the heat source device. |
| Temperature heats up slowly. | • P data is too large. Need to set higher.<br>• Heating device power is small, or temperature probe is too far. |
| The temperature fluctuation is unstable. | P value is too big or C value is too small. |
| Temperature feedback is insensitive. | C value is too big, please turn down. |
| The temperature error tolerance is big. | The temperature probe is faulty or the probe is in an incorrect position. |
| Slight error of displayed temperature. | The system has errors, adjust the SC value. |

## AFTER-SALES SERVICE:

1. Our company is responsible for providing warranty for any problems caused by the product quality within two years after the date of purchasing the product. However, our company will not assume any and related maintenance costs incurred by any product defaults caused by improper use or man-made damage by the user.

2. The product must accept the warranty service by depending on the warranty sheet.

3. Once the product's internal structure or the parts that is indicated for prohibiting disassembly in the User's Manual is disassembled, it shall be deemed as man-made damage.

4. The user shall pay maintenance costs incurred beyond the warranty period